

Serial No. 10/750,848

Docket No. K-0601

Amdt. dated February 17, 2006

Reply to Office Action of November 17, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A side pumping type Diode Pumped Solid-State (DPSS) laser, comprising:

a first laser chip for generating a pumping light;

a second laser chip, the second laser chip generating a second pumping light, the second laser chip, although being parallel with the first laser chip, slightly slanted to a predetermined degree so as to avoid a contact with between the pumping light and the second pumping light;

a first and second focusing lens for focusing the pumping lights; and

a side pumping medium for forming the focused pumping lights in a beam mode so as to output as a lasing ~~light~~ light,

wherein the side pumping medium comprises:

a laser material manufactured in a plate type;

partial reflection (PR) coating formed on a front surface of the side pumping medium for transmitting a part of the lasing light; and

a stop coating formed between the PR coating and the laser material for filtering the pumping lights, and a middle portion thereof being removed for filtering all lights except a light in a pumping light lasing mode.

2. (Currently amended) The side pumping type DPSS laser of claim 1, wherein the side pumping medium further comprises:

~~a laser material manufactured in a plate type;~~

a sapphire plate formed at both sides of the laser material and having an anti-reflection (AR)~~AR~~ coating and high reflection (HR)~~HR~~ coating alternatively provided on each side of the laser material;

a copper block provided at a top of the sapphire plate for fixing the sapphire plate and transmitting heat to outside; and

HR coating formed on a rear surface of the side pumping medium for reflecting radiated lasing ~~light; and~~light

~~PR coating formed on a front surface of the side pumping medium for transmitting a part of the lasing light.~~

3. (Canceled)

4. (Original) The side pumping type DPSS laser of claim 2, wherein a width of the laser material is in a beam waist size of the lased laser.

5. (Original) The side pumping type DPSS laser of claim 2, wherein a doping amount of the laser material is a value of the pumping light radiated to and absorbed by the laser material after being transmitted through the laser material.

6. (Currently amended) The side pumping type DPSS laser of claim 1, wherein ~~perpendicular~~a perpendicular component of the light radiated to ~~the predetermined~~a predetermined surface is focused and ~~parallel~~a parallel component thereof ~~is proceeded~~proceeds in parallel.

7. (Currently amended) The side pumping type Diode Pumped Solid-State (DPSS)~~DPSS~~-laser, comprising:

a first pumping laser diode (LD) generating a plurality of pumping lights;

a second pumping laser diode (LD), the second pumping laser LD generating a plurality of second pumping lights, the second pumping LD provided to be slightly slanted such that the pumping lights are not in contact with each other although being parallel around the side pumping medium;

a first and second focusing lens array having a plurality of focusing lens for focusing a plurality of the pumping lights; and

a side pumping assembly forming the focused pumping lights in a beam mode so as to output as a lasing ~~light~~light.

wherein the side pumping assembly comprises:

a laser material manufactured in a plate type;

partial reflection (PR) coating formed on a front surface of the side pumping medium for transmitting a part of the lasing light; and

a stop coating formed between the PR coating and the laser material for filtering the pumping lights, and a middle portion thereof being removed for filtering all lights except a light in a pumping light lasing mode.

8. (Canceled)

9. (Original) The side pumping type DPSS laser of claim 8, wherein a doping amount of the laser material is a value of the pumping light radiated to and absorbed by the laser material after being transmitted through the laser material.

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10. (Original) The side pumping type DPSS laser of claim 8, wherein a width of the laser material is in a beam waist size of the lased laser

11. (Original) The side pumping type DPSS laser of claim 8, wherein a doping amount of the laser material is a value of the pumping light radiated to and absorbed by the laser material after being transmitted through the laser material.

12. (Original) The side pumping type DPSS laser of claim 7, wherein the focusing lens array focus perpendicular component light radiated to a predetermined surface and proceeds parallel component light parallel.